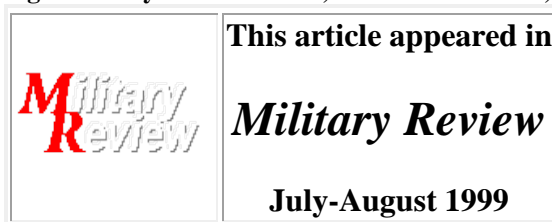

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The Brazilian Amazon: Controlling the Hydra

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The frontier where the Amazon River forms the border between Peru and Colombia, then flows into Brazil, has become one of the critical "hot spots" in South America-and not just because it is near the equator. Here, the Brazilian city of Tabatinga (alongside sister-city Leticia, Colombia) is the nexus of transnational activities that make this region an exemplar for regional un-governability.¹ Dangers to security and managed development in the Brazilian Amazon abound. Brazil will need modernized, mobile forces and sound operational concepts to control the Amazon.

Brazil's interests throughout the Amazon include defending the territorial integrity of a huge area, over half the size of the country; maintaining a Brazilian spirit of citizenship (and ascendancy of the Portuguese language) in border communities; and promoting sustainable development. Advancing these strategic interests hinges on cultivating cooperative relationships with neighboring countries and actively defending against transnational threats that have blossomed at remote jungle borders.

The Threat

Threats to Brazilian interests include the criminal activities of narcoguerrillas and drug traffickers, smuggled contraband ranging from guns to bird feathers and direct assaults against the environment and economy by illegal loggers, gold miners, fishermen and hunters. South American nations hold each other responsible for these coterminous border areas in traditional, geostrategic terms, but they have been unable to maintain control. The *Alto Solimões* region of western Amazonas state, which Brazil guards with a battalion of jungle infantry, some platoon outposts and a handful of federal police has been especially problematic.² This area represents the challenges found all along the border of Brazil's *Região Norte* (northern region), and thus, the *Alto Solimões* is the main focus of this article.³

The Area of Operations

The Brazilian Army's Solimões Frontier Command (CFSol)/8th Jungle Infantry Battalion is responsible for providing security throughout the *Alto Solimões* and along the open frontier. This section of the frontier is 1,300 kilometers long, running north and south from Tabatinga on the border with Colombia and Peru. The area of responsibility is about the size of Pennsylvania, and it sustains about 130 thousand people who live in and around seven small fluvial townships or counties. About 30,000 of these are indigenous people who continue to live in 90 outlying tribal societies. Officially there are about 200 foreigners registered in Tabatinga, but local officials estimate that 10,000 Peruvians and Colombians reside throughout the municipality. Many of these foreigners are directly or indirectly connected with drug trafficking, illegal fishing and wood cutting.⁴

Although the CFSol area of responsibility has a relatively small population, it is rich in natural minerals, trees and fish, attracting Brazilian and foreign businesses. The river transportation system supports ocean-going ships that travel from Iquitos, Peru, via the port at Tabatinga, on through the Brazilian Amazon to the Atlantic Ocean. Not one major road exists in this region linked by rivers.



Clockwise from bottom: River traffic from Peru and Ecuador at the port of Tabatinga; Tacuna Indians at a village bar greet army personnel arriving for a medical support visit; and a river craft intercepted by federal police and army troops while on its way from Peru to a rendezvous point on the Atlantic coast 2,000 river-miles to the east.

The river network, stretching into the center of South American drug, gold and wood-producing areas, has attracted criminals to Tabatinga and the *Alto Solimões* region. Indeed, the Brazilian Antidrug Secretariat (SENAD) regards the Tabatinga area as a critical drug-trafficking pathway to the Atlantic and has given priority to preventing Colombia's narcoguerrillas from infiltrating the Brazilian Amazon.⁵

Narcoguerrillas

Tabatinga and other border communities in the Brazilian Amazon face a serious armed threat from narcoguerrillas, elements of the Colombian Revolutionary Armed Forces (FARC).

Throughout Colombia, the FARC may total as many as 15,000 armed combatants in perhaps 80 units, called fronts. Established in 1966 as the military arm of Colombia's Communist Party, the FARC today is a big criminal business, bringing in approximately \$363 million annually through kidnapping, extortion, drug trafficking and money laundering.⁶

The spillover of guerrilla activity into Brazil's *Alto Solimões* is repeated all along the Colombian border, causing concerns in Venezuela, Panama, Ecuador and Peru. Venezuela has reinforced its border posts against FARC guerrilla actions, plus ELN (National Liberation Army) and AUC (United Self-defense Force) paramilitary units. Panama, Ecuador and Peru have also increased military and police presence on their Colombian borders.⁷

Throughout Colombia, FARC fronts have moved into areas connected to coca, petroleum, opium poppies, cattle ranching, bananas and gold. For example, the 11 fronts of the FARC's southern bloc are involved in growing, processing and marketing cocaine along the San Miguel and Putumayo rivers, which form part of Colombia's southern border with Ecuador and Peru.⁸ The bloc's 14th Front reportedly controls coca labs in the Peruvian jungle between the Napo and Putumayo rivers.⁹ These rivers flow directly into Brazil, with the Napo River offering easy access into Brazil at Tabatinga via the Amazon River. Around Tabatinga and in the *Alto Solimões* region generally, FARC elements have been attracted by the profit potential of drug trafficking, money laundering and illegal gold mining.¹⁰ The FARC threat to Brazil is not new.

In February 1991, a 40-man FARC guerrilla unit attacked across the Traíra River from Colombia into Brazil, killing three Brazilian soldiers and wounding nine other members of a 17-man Brazilian Army detachment. The detachment was at an outpost on the Traíra, 400 kilometers north of the Brazilian Army's Frontier Command headquarters at Tabatinga. The FARC attack responded to Brazilian Army efforts to establish law and order in an Indian region of illicit gold mining, where FARC had been extorting miners and raiding a local mining company. Cooperative Brazilian-Colombian military operations eliminated the offending FARC unit.¹¹

In September 1996, the Frontier Command went on full alert because of FARC guerrillas in Letícia, Colombia, and reports elements had crossed the border into Brazil near Tabatinga. About 1,000 soldiers of the CFSol, and the 8th Jungle Infantry Battalion deployed throughout Tabatinga to guard border locations, military installations and the airport. The Colombian Army Southern Command took similar actions in neighboring Letícia.

While the operation only lasted two days, it established a contingency procedure. This is important preparation, because threat analysis by both Brazilian and Colombian army officers indicates that the US Andean Ridge Strategy, which effectively put pressure on narcotraffickers in coca-growing areas of Peru, has pushed drug activities into the Amazon Basin. Federal police believe that a large drug trafficking organization has centered its activities on Letícia and Tabatinga.¹²

On 1 November 1998, the Brazilian Army faced the narcoguerrilla threat, when about 1,400 FARC combatants attacked Colombia's Vaupes Department capital, Mitú, less than 20 miles from the border with Brazil.¹³ Mitú serves as a transshipment point for chemicals essential in making cocaine. The contraband chemicals move up the Vaupes River from Brazil to production areas in Colombia.¹⁴

In a loosely coordinated combined effort (which later sparked Brazilian protests), the Brazilian Army border platoon outpost at Querari refueled aircraft and supported ground operations. About 500 Colombian troops counterattacked from Brazil to retake Mitú on 4 November. In the battle, 150 Colombian combatants, seven civilians and five FARC guerrillas were reported killed and the FARC captured 40-45 police.¹⁵ Beyond the scourge of ongoing narcoguerrilla activities, the Brazilian Amazon faces an even wider range of transnational dangers that contribute to the border's lawlessness.

Gold Mining and Logging

Gold mining poses both a direct and indirect threat to the *Alto Solimões*. *Garimpeiros*, clandestine gold prospectors working along the Rio Puruê and Rio Jutai, create ecological problems with jungle clearing, mercury pollution and contamination of the fish. In addition, the *garimpeiros* often consort with drug traffickers as laborers or money launderers.



Brazilian soldiers make a quick inspection of river activity. In Amazonas State everyone travels by river, including families, legitimate tradesmen, illicit gold miners (*garimpeiros*) and smugglers.

The decline in clandestine gold mining in recent years in the nearby Brazilian states of Rondonia and Para has stranded thousands of jobless destitute *garimpeiros*. The clandestine mining industry and its workers are shifting to new areas such as Tabatinga, and these workers are readily recruited to log Bigleaf Mahogany and other fine woods.¹⁶ This is the principal threat to the flora of western Amazonas state, where loggers have cut into indigenous lands, national parks and wildlife preserves. About 80 percent of Brazil's mahogany is logged illegally; worse, loggers cut down 27 other trees to harvest just one hardwood tree.¹⁷

Wood illegally cut from the Brazilian *Selva* (jungle) floats along the rivers during the rainy season (September through March) to sawmills in Brazil and Peru before shipment via the Amazon River to world markets. The Brazilian Army has tried to stop clandestine logging and its destruction of Indian lands and culture. But the *Selva* is immense and the army presence is too small to secure the Amazon.

What is the army's role and how does it operate to defend Brazil's interests in security and development? The purpose for an army presence in the western Amazon dates to 1637, when Portuguese Captain Pedro Teixeira explored the length of the Amazon Basin. His expeditions began the doctrine of *uti possidetis* (sovereignty resulting from settlement).¹⁸ By 1776 the new Brazilians had established Fort San Francisco Xavier de Tabatinga to defend the frontier and support settlement in the western Amazon region. With few disruptions, Brazil's soldiers have maintained Fort San Francisco for over 200 years to ensure ownership of the frontier.

The Army's Role

The idea of "sovereignty and settlement" in modern times is embodied in the *Calha Norte* federal consolidation initiative for security and development in areas ranging to the north of the Brazilian Amazon and Solimões rivers.¹⁹ Efforts are concentrated within a 100 mile-wide zone along the northern border, protected by border platoon outposts and other units.²⁰ The government of President José Sarney approved the 1985 project for bringing "order and progress" to the Amazon by settling people in the remote Brazilian jungle areas.²¹ Initially seen as a high-priority interagency effort, in recent years support for the *Calha Norte* project has waned, and the armed forces, especially the army, have done most of the work.²² Brazil's National Defense Policy (PDN) intends to revitalize the *Calha Norte* project with the aim of settling and controlling Amazon borders.²³

The army's peacetime operational concept for the Brazilian Amazon involves four Jungle Infantry brigades, six Frontier Command Headquarters, their integral jungle infantry battalions, and a series of 20 border platoon bases in remote areas.²⁴ Jungle infantry battalion troops conduct security operations along the frontier, while the border platoon outposts anchor community and economic development at remote sites.

Brazil's Army in the Amazon



Frontier Commands/Jungle Infantry Battalions (CFIGIS)

UNIT	LOCATION	UNIT	LOCATION
Acre, CFAC/4th BIS	Rio Branco	Roraima, CFRO/6th BIS	Guajará Mirim
Amazonas, CFAP/3rd BIS	Macapá	Roraima, CFR/7th BIS	Boa Vista
Rio Negro, CFRN/5th BIS	São Gabriel da Cachoeira	Solimões, CFSol/8th BIS	Tabatinga

The CFSol and 8th Jungle Infantry Battalion make up an integrated force designed to provide security while supporting development missions along the border. Operating out of Fort San Francisco, it is typical of the six Frontier Commands in the Brazilian Amazon, containing two companies of jungle infantry, a headquarters company and a base administration support company. Also located in Tabatinga are logistics and service units, a navy port captain's office, an air force detachment and a large army hospital.

The base administration support company oversees and supports the command's four border platoons, located far from Tabatinga.²⁵ With nearly all transportation by boat, the 3d Border Platoon, 320 kilometers

to the north at Bittencourt on the Japurá River, is a week away. The 1st Border Platoon at Palmeiras on the Javari River, 340 kilometers southwest of Tabatinga, is six days travel by boat. Travel southwest to the 4th Platoon at Estirao do Equador on the Javari River, or northward to the 2d Platoon at Ipiranga on the Ica River takes about four days. When air transportation is available, the four platoons can be reached within an hour. Because the dispersed platoons cannot reinforce one another, detachments from the jungle infantry companies based at Tabatinga provide surveillance and direct-action capabilities in the vast jungle between the outposts.

Jungle Combat—the Jungle Operations Detachments

The Jungle Operations detachments (DOS) are formed into groups of about 12 highly trained jungle infantry soldiers skilled in long-range reconnaissance and combat patrolling.²⁶ The DOS provide surveillance of the open frontier between border platoon positions and within the interior of the *Selva*. They also provide a limited quick-reaction capability for civil and military emergencies.



Brazilian infantry patrol the jungle in the vast areas between border patrol outposts. The DOS are organized like a US Army special forces A-Team, with one or two company grade officers leading sergeants and soldiers highly trained in areas such as communications, medical care and demolitions. Combat-equipped with folding-stock para FN FAL 7.62mm rifles, an FN MAG 7.62mm machinegun, ammunition and supplies, the DOS can patrol the jungle for about 10 hours a day, advancing perhaps 10 kilometers.

A typical DOS direct-action mission supports the federal police efforts against drug traffickers in the Brazilian Amazon. The DOS can neutralize small, clandestine airstrips that narcoguerrillas often build to move the coca product. The team accompanies federal police in medium-size boats to drop-off points along the river network, then moves inland to locate the airstrips using Global Positioning System instruments and aerial photographs.

In similar missions, other jungle infantry detachments deploy to assure security for law enforcement. The federal police in the *Alto Solimões* region are few, and military support is often essential to control the flow of cocaine and other contraband through the area. At Anzol base, located on a constricted reach of the *Rio Solimões*, police officers search boat traffic headed down river. The jungle infantry secures the small outpost against retaliation by narcoguerrillas.



After landing in a twin-engine Embraer *Bandeirante* aircraft at a small *pista* (airstrip) on high ground in the jungle, passengers move by small boat to the border platoon base at Estirao do Equador on the Javari River. Troops must remain armed and vigilant for potential ambush from the shoreline.

The DOS is most important to the CFSol for its reconnaissance patrolling. These teams habitually operate in the same river basin areas, including the Rios Javari, Quixito, Itaquai, Itui, Curuca and Branco. They develop a thorough understanding of the area and its people and maintain a strong intelligence capability. Because many of these jungle infantry soldiers' families

reside in the *Alto Solimões*, the local Indians and *caboclos* keep the DOS well informed about guerrilla and criminal intruders.²⁷ With this expertise, the DOS have also proved essential for search and rescue operations in the *Selva*.

In recent years the DOS have been the Frontier Command's point teams and assist various federal agencies in protecting and developing the region. The DOS support the Brazilian Environment and Renewable Resources Institute (IBAMA) against clandestine hunting, fishing and logging.²⁸ They help the National Foundation for Indian Affairs (FUNAI) locate unauthorized miners, farmers and loggers operating on Indian lands. Interestingly, these soldiers bring in special and dangerous plant specimens for the National Institute of Amazon Research (INPA) to evaluate as medicine or food products.²⁹

To accomplish their demanding tasks, the jungle infantrymen receive specialized training that extends beyond the typical military experience. Army Land Forces Command instruction on "environmental care" trains them to look at areas where miners, loggers and poachers are polluting the rivers, burning the *Selva* and killing game—while focusing on the current military mission.³⁰ The DOS missions are essential to Brazil's strategy for Amazon security. But the outlying Border Platoon bases and their surrounding communities represent the quintessence of Brazil's National Defense Policy "to develop and populate the border."³¹

Army Frontier Settlements

The Border platoons establish a physical presence along the Amazon frontier to reinforce Brazil's commitment to regional security. As long ago as the 17th century, Brazilian military outposts provided a base for communities, and the platoons attract development around their positions today. A senior infantry lieutenant, assisted by his noncommissioned officers, usually commands the platoon bases. Each base also includes an army doctor, dentist and laboratory assistant who also serves as a pharmacist. The CFSol/8th BIS Border platoons' average strength is 150 military and dependents, with another 200-500 local people settled around the bases. Thus, total population at each of CFSol's four platoon communities ranges from 350 to over 600.³²

A platoon base Self-Defense Force is organized, trained and armed as light infantry to provide quick reaction to emergencies and community security.³³ The Self-Defense Force comprises farmers, laborers and fishermen, and their close ties to the local area affords good access to human intelligence. They receive routine training from the Border Platoon commander and form an effective unit for local defense.

Soldiers are encouraged to settle their families at the Border Platoon bases, bringing a sense of Brazil's culture from hometowns all over the country. The frontier communities attract local inhabitants (otherwise given to nomadic lifestyles) to settle and build homes nearby so that they can take advantage of health care and schooling. The frontier community manages electricity and treated water systems and strives to pave the streets with asphalt. The homes are typically small, two- or three-room buildings, complete with thatch or tin roofs and a satellite antenna to capture Brazilian television. Each Border Platoon community has a primary school, with officers' and noncommissioned officers' wives serving as teachers. Often, the soldiers serve as teachers too, and everyone can take advantage of the long-distance education programs via TV.



At border platoon bases, schooling is provided to local children through the efforts of the soldiers and their wives. Here at Estirao do Equador, a border platoon noncommissioned officer is teaching geography to grade-school children in a school house built by the Brazilian army.

The health clinics at the Border Platoons provide a doctor and dentist for outpatient care. Because of limited medical evacuation to the army hospital at Tabatinga, the doctors, supported by a small but well-stocked pharmacy and laboratory, also handle serious medical emergencies.³⁴ In the Alto Solimões malaria, tuberculosis, hepatitis and cholera are prevalent, along with other diseases such as leishmaniasis, oropouche fever and yellow fever. Snakes and leeches can be hazards too, and it is common for the army doctors to treat snakebite victims.³⁵

The clinic staff at the platoon outpost see about 3,000 patients each year. Treatment for food-borne and water-borne illness is common, and a medical team from the army hospital at Tabatinga conducts field trips to attack the underlying causes of cholera outbreaks. It is normal for Peruvian or Colombian jungle dwellers to appear at the platoon outposts seeking medical care, which they are provided as a humanitarian gesture. While active in humanitarian and civic actions, the jungle soldiers focus on their primary missions: to maintain vigilance on the border and attract settlement and development.



Soldiers prepare a Bandeirante aircraft to shuttle priority cargo and an Indian woman suffering a difficult pregnancy to Tabatinga. River travel from the headquarters at Tabatinga southwest to the 4th Platoon at Estirão do Equador takes about four days, but when air transportation is available, the platoon can be reached within an hour; An army dentist treats a woman at a temporary dental clinic established in the schoolhouse at Tacuna Indian village located on the Solimoes River.

The Frontier Command promotes municipal development throughout the *Alto Solimões*. Its reforestation program enlists local workers in a legal regimen against illegal and destructive logging business. In 1996 the command confiscated over 9,000 logs of quality wood headed to collection points in Peru.³⁶ It envisions a logging center near Estirão do Equador that will manage a forestry program with IBAMA.

The Frontier Command also searches for new medicines and foods. Scientists at the University of Amazonas and INPA in Manaus have been working with the army to integrate modern methods of biotechnology with traditional Indian knowledge of the therapeutical effects of various jungle plants. At Tabatinga, army pharmacist First Lieutenant Giovanni Carlo Guercio has cataloged and tested over 50 plant specimens for their usefulness and to find out which plants can be grown commercially. A light industry may develop from processing these special plants for medical use.³⁷

Brazilian President Cardoso unfolded a vision for national security and development that depends on a "ring of peace" around the Amazon and the rest of the country.³⁸ Despite the *Calha Norte* plan and other initiatives designed to assure security and development throughout the Legal Amazon, the damage to the environment, abuse of Indians and their lands and ubiquitous criminal activity suggest the strategy is failing.

Continuing Dangers and New Threats

Economic and social reforms supported by vigorous military and police activities can mitigate dangers to the Amazon. Some solutions reside squarely within the domain of the National Congress. The army's role "to protect the Brazilian Amazon Region with the support of all of

society and by utilizing the military presence" requires reassessing its force structure and operational concepts for defending the jungle patrimony.³⁹ The border platoons will remain essential for serving the Brazilian people, but they are insufficient. Operating concepts exploiting modern weapons and technology and capable of countering new, emerging threats should augment the 300-year-old core strategy of *uti possidetis* (sovereignty resulting from settlement).

As the \$1.4 billion System for the Vigilance of the Amazon (SIVAM) comes on line in 2002, it will need an up-to-date operational backup. SIVAM is envisioned as an integrated system of 10 giant radars (radomes), 100 weather stations, surveillance aircraft, communications monitoring and digitized satellite imagery, supported by a satellite-based radio and telephone network. Computers at three operations centers (Belem, Manaus, Porto Velho) will integrate data from 860 sites and pass it to the General Coordination Center in Brasilia. The future network offers information about weather hazards, jungle fires and criminal activities, as well as airspace control over the Legal Amazon.⁴⁰

Still, mobile police and military forces are necessary to respond to the integrated, multisource information. Developing ample airmobile force structure (especially helicopter units), repositioning some elements of the strategic Rapid Reaction Capability force to meet the emerging threats and providing funds to support a high tempo of operations and training are concepts familiar to Brazil's military planners.

With sufficient funding by the National Congress, the Brazilian army will be able to start modernizing its force and fully leverage SIVAM's technological advantage. However, given Brazil's recent financial crisis, the surveillance system will likely come on-line long before law enforcement and the military are ready to fully exploit it.⁴¹ Military commanders will be able to see the battlefield better but still not act effectively.

The Brazilian army pursues its security mission as "the main defender of the Amazon."⁴² Energy and enthusiasm aside, the Amazon is vast and army resources are limited.

1. Tabatinga, a population of 35,000 people, is located on the banks of the *Rio Solimões* (the regional name for the Amazon River). The noun *tabatinga* refers to a type of red clay found on the banks of the *Solimões* and other rivers.

2. In the western area of Amazonas state, the Amazon River is usually referred to as the *Rio Solimões*. After the *Solimões* joins the *Rio Negro* at the Jungle City of Manaus, the river is called the *Rio Amazonas* (Amazon River). The area described is generally in the Upper (High or *Alto*) *Solimões* region of the border.

3. Brazil's Legal Amazon (*Amazônia Legal*), so designated for developmental planning, is well over half the country (about 60 percent) and includes the 9 states of Acre, Amazonas, Roraima, Pará, Amapá, Maranhão (except for a small eastern section), Tocantins, Mato Grosso, and Rondônia. Brazil's geographical northern region (*Região Norte*) is about 42 percent of the country and is the same as the Legal Amazon, minus the states of Mato Grosso and Maranhão.

4. Author's discussions with Federal Police at post in Tabatinga and with Army officials at Fort San Francisco in Tabatinga, 2 May 1996.

5. Renato Fangundes and Paulo Mussoi, "Government To Sign Drug Enforcement Accord with Colombia," *Journal do Brasil*, Rio de Janeiro (Internet version), 21 December 1998; available from FBIS WA2212213598; Internet.

6. "Defense Minister Says FARC Not a Drug Exporter," Colombian *Radio Cadena Nacional*, WWW (Bogota: 22 Aug 98), Internet; translated by FBIS, FTS19980822000760; also see "Defense Minister Lloreda Previews Programs," *El Tiempo*, (Bogota: 18 Aug 98), FBIS PA2108182998.

7. Graham H. Turbiville, Jr., "Foreign Special Operations Forces," *Special Warfare* 11, (Summer 1998), Internet: <<http://call.army.mil/call/fmso/sof/issues/summer98.htm>>.

8. For an account of guerrillas "taxing" drug trafficking operations see "Tirofijo's Cartel," *Semana* (Bogota: 13 Feb 96), 34-36; available from FBIS FTS19960213000299; Internet. Also see *El Tiempo* (15 July 1996) and FBIS, *El Tiempo* (5 August 1998), which lists specifics regarding the activities of the FARC's 14th Front. This front significantly taxes drug activities in Caquetá.

9. Cesar Reategui, "FARC Guerrillas Reportedly Own Drug Labs in Peruvian Jungle," *Lima Expresso*, Internet version (24 May 1998); available from FBIS PA3105234598; accessed 28 December 1998; Internet. Also, "FARC Subversives Said to Have Infiltrated Peru," *Lima Expresso* (29 September 1996); available from FBIS PY0310165396; accessed 28 December 1998; Internet.

10. "Documento, La Versión Alemana," *Semana*, 768 (Bogotá: 20 January 1997), 48. The FARC seems to be growing in strength over the past five years, from 5,000 armed combatants in 48 fronts in 1992 to about 7,500 combatants and 66 fronts (100-200 men each) today, but the numbers vary, depending on who is providing the information. By his own account, 70 year-old FARC leader Manuel Marulanda Velez (Tirofijo_Sure Shot) claimed in a June 1998 interview (see Patricio Echegaray, "Oscuro Panorama En Colombia: Tiro Fijo," *La Jornada*, [8 Jun 98], 57) that the FARC has 60 fronts. According to "Colombian Terrorism, 1957-1996," *Latin American Special Report*, 5 Jun 96; Vol. 1; No. 3, a front is alleged to have between 130 to 200 people. Thus, one could estimate FARC's strength to be between 7,800 to 12,000. For a government account of the guerrilla strength, including Police Director General Serrano's comments, see "Los `Cacaos' de la guerrilla," *Cambio 16*, 6 Jul 98, translated as "Sources, Amounts of Guerrilla Funding Noted", FBIS FTS19980707001747, 7 July 1998. See also "The Big Guerrilla Business," *Semana* 531 (Bogotá, 7-14 July 1992), as translated by Robert T. Buckman, RMSO Report No. 10 (Fort Leavenworth, Kansas: Foreign Military Studies Office, 8 December 1992).

11. Alvaro de Souza Pinheiro, Colonel, Brazilian Army, "Guerrilla in the Brazilian Amazon," *Military Review, Edição Brasileira* (1st Qtr. 1995), 58-79. The combined Brazilian-Colombian operations conducted throughout 1991 were called "Traíra" and "Perro Loco."

12.Amaury Ribeiro Junior, "Security Tightened at Colombian Border To Deter FARC," *O Globo* (Rio de Janeiro) 13 September 1996, 12; as translated in FBIS PY1309220896, 13 September 1996; also, author's discussions with Federal Police at post in Tabatinga and at Anzol river base on the Rio Solimões, 2 May 1996.

13.The strategic reason for the attack may have been to position the FARC in a strong position for peace negotiations between President Pastrana and FARC leader Manuel Marulanda that was scheduled for January 1999.

14.Jared Kotler, "Rebels Inflict Heavy Losses in Colombia, 150 Government Fighters Die Taking Jungle Town," Associated Press, *Miami Herald* (Miami), 5 November 1998.

15."El síndrome de Jacobo," *Semana*, (9 November 1998), 50-3. Also "Colombia Declares Curfew in Amazon Provinces Following Attack," *Bloomberg News* (5 November 1998), Internet. "Colombia Rebels, Anti-drug Police," *Miami Herald* (2 November 1998), Internet. "Asesina guerrilla a 70 policias," *El Norte* (3 November 1998). The Brazilian government recalled its ambassador for consultations in a display of pique for Colombia's inadequate coordination with Brazilian authorities.

16.Edilson Martins, "Effects of Mahogany `Devastation' in Amazon," *Jornal do Brasil* (Rio de Janeiro) 7 January 1996, 8-9, as translated in FBIS-96WN0021A.

17.General de Brigada Sylvio Heitor Ramos, interview by author (Manaus, Amazona, 29 April 1996). The "burning of the rainforest" often refers to the burning of upland jungle growth generally in the states of Pará and Mato Grosso. There, state-encouraged colonization (during the 1960s-80s) astride newly constructed roadways allowed for uncontrolled farm/ranch development laterally along secondary roads and trails. For the fleuvial communities of the western Amazon (Amazonas State, where it rains every day, and much of the land is underwater) the real danger to the *Selva* (jungle) comes from illegal and uncontrolled logging operations, plus illegal gold mining. See also "Illegal and Predatory Logging of Brazilian Hardwoods," 1 March 1999, Rainforest Action Network <http://www.ran.org/ran/ran_campaigns/brazil/logging.html>.

18.Early Portuguese exploration and outposts benefited Portugal in the Treaty of Tordesillas. By the Treaty of Tordesillas, 1494, Pope Alexander VI divided the new world between the Portuguese (lands to the east of the line) and Spanish (lands to the west) crowns. Plate 37, "Map of the Courts," is a view of the map of Brazil used in negotiating the Treaty of Madrid. Therezinha de Castro, *História Documental do Brazil* (Rio de Janeiro: Biblioteca do Exército Editora, 1995), 103. See also José Maria de Souza Nunes, and Isa Adonias (cartography), *Real Forte Príncipe da Beira* (Rio de Janeiro, Brazil: Spala Editora, Fundação Emílio Odebrecht, 1985), 72, 97. Plate 13 provides the first cartographical representation of Brazil and the Tordesillas line (about 64° west longitude).

19.Calha Norte, northern channel, meaning areas northward of the Amazon River. Also translated as Northern Headwaters and North Path/Strip.

20. Carlos Tinoco, Minister of the Brazilian Army, "Testimony of the Minister of the Army, to the National Congress" (D.F. Brasília, 4 April 1991), 7. The Army presence in the Legal Amazon includes the 16th Jungle Infantry Brigade at Tefé, 17th Jungle Infantry Brigade at Porto Velho, the 23rd Jungle Infantry Brigade at Marabá, 6 jungle infantry battalions associated with Frontier Commands and 7 other jungle infantry battalions. Brazil's Legal Amazon (Amazônia Legal), so designated for developmental planning, is well over half the country (about 60 percent) and includes the states of Acre, Amazonas, Roraima, Pará, Amapá, Maranhão (except for a small eastern section), Tocantins, Mato Grosso, and Rondônia. Brazil's geographical northern region (Região Norte) is about 42 percent of the country and is the same as the Legal Amazon, minus the states of Mato Grosso and Maranhão.

21. "Order and Progress" is the motto on the national flag adapted from European positivist thinking that the conservative value of "order" should live in harmony with the liberal value of "progress." The flag was created at the time of transition from the Brazilian Empire under Dom Pedro II to the First Republic, 15 November 1889.

22. Paulo Silva Pinto, "Brazil's Slowness in *Calha Norte* Project Viewed," *Folha de Sao Paulo*, 28 January 1996, Sec. 1, 14, as translated in FBIS-LAT-96-021 (drlat021_m_96008), 28 January 1996; see also Lucas Figueiredo, "Army Seeks Funding for *Calha Norte* Project," *Folha de Sao Paulo*, 22 August 1996, as translated in FBIS-LAT-96-167 (drlat167_m_96015). The project has proceeded at a quiet pace. Silva Pinto writes, "An estimated [Reals] R8 million should have been allocated to the project in 1995, but only R5 million were transferred to pay its cost. The 1996 budget contemplates just R8 million for the project." The 1996-7 exchange rate improved to roughly 1 Rial=\$1, but by March 1999 was about 2 to 1.

23. Marcia Gomes, "Government Launches Project for Defense of National Sovereignty," *Jornal do Brasil, Rio de Janeiro*, 8 November 1996, as translated in FBIS-LAT-96-221 (drlat221_m_96008), 8 November 1996. The National Defense Policy (PDN) of 1996 addresses national sovereignty, national unity, safeguarding resources, defense of national interests abroad and Brazilian international presence, and international peace and security. It was a step toward unification of the armed forces under a Minister of Defense (accomplished in 1999). The PDN identifies armed criminal gangs in the Amazon (guerrillas, drug traffickers, other criminals) as the principal threats to national sovereignty, and identifies threats on the southern border (Argentina) as no longer significant. It revives and reinforces the Calha Norte project to bring greater development support to some 5,000 municipalities along 16,000 km of Brazilian border.

24. The Army occupies 62 bases of varied sizes throughout the Amazon. Nationwide the Brazilian Army has 8 divisions, 26 brigades plus artillery, engineer, signal, and logistics units. A Rapid Reaction Capability is maintained by keeping these units at a state of increased readiness: the Parachute Brigade; 12th Light Infantry (Airmobile) Brigade, the Aviation Brigade and the 1st Special Forces Battalion (which responded to the 1991 Traíra River incident mentioned earlier in this article). The RRC has top-quality units by world standards, but it has been significantly crippled in recent years by budget shortfalls. It does not have sufficient aviation assets to adequately accomplish the Amazon protection mission.

25. *Pelotões de Fronteira* (Border platoons), or PEF.

26. The Destacamentos Operacionais de Selva (Jungle Operations Detachments), or DOS.

27. *Caboclos* are typically the people who are born in the Amazon (other than indigenous people still living in Indian tribal units), often described as mixed breed people that work throughout the Amazon Basin (fishermen, farm hands, rubber tappers, and laborers, socialized Indians).

28. Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis (Brazilian Environment and Renewable Resources Institute), IBAMA.

29. Lourdes Soares, researcher, Botanical Gardens, Manaus, Amazonas, Instituto Nacional de Pesquisas da Amazônia (INPA), interview by author (Manaus, 27 April 1996).

30. Miguel Angelus Hollanda Cavalcanti, Colonel, Brazilian Army, Chief Special Activities for Commander, Land Operations (COTER), interview by author (Brasília, 26 April 1996).

31. Fernando Henrique Cardoso, "Política de Defesa Nacional," *Parcerias Estratégicas* 1, no. 2 (December 1996), 18. As noted earlier in the article in the context of cross-border criminal threats, thousands of "foreigners" have advanced into Brazil's border areas. These people are Colombians and Peruvians who bring with them Spanish culture and the Spanish Language. A main purpose for populating the border (typically around the border platoon locations) is to promote Luso-Brazilian citizenship and use of the Portuguese language.

32. José Antonio Braga, Colonel, Brazilian Army, Commander, Solimões Frontier Command and 8th Jungle Infantry Battalion (CFSol/8th BIS), briefings and interview (Tabatinga, Amazonas, 2 May 1996).

33. The Self-Defense Force is often called the FAD (Força de Autodefesa).

34. Antonio Valerio da Silva, Jr., First Lieutenant, Brazilian Army, Medical Doctor, interview by author (Border Platoon Base Estirão do Equador, Rio Javari, Brazil, 1 May 1996).

35. Snakes that are common to the area are the hemotoxic *jararaca*, or the neurotoxic coral snake and *surucucu pico de jaca*. Brazilian jungle soldiers learn about snakes in their Jungle Warfare Training Center (CIGS) course in Manaus and how to care for snake-bite victims. When on jungle patrol, each soldier carries a special first aid kit with antivenin and antihistamine for countering the effects of insect bites.

36. Author's visit to squad-size position on the Javari River (west of Benjamin Constant), 3 May 1996. Here soldiers were holding several hundred confiscated logs until they could be licensed and shipped to Brazilian mills. The wood appeared to be mahogany.

37. Giovanni Carlo Guercio, First Lieutenant, Brazilian Army Medical Corps, interview by author, Tabatinga, Brazil, 30 April 1996.

38. "Brazilian National Defense Policy," Brazilian Embassy (Washington, D.C.), 2. Available from <<http://www.brasil.emb.nw.dc.us/fpst10de.htm>>, Internet; accessed 8 March 1997.

39.Marcia Gomes.

40.Raytheon Electronic Systems, home page, 8 March 1999 <<http://www.raytheon.com/sivam/>>. Also, Alex Bellos, *The Guardian* (15 October 1998); Internet. Some security requirements of the SIVAM include monitoring drug traffic, mineral and hard wood smuggling, demarcation lines invasions, Indian reservations, national borders, forest fires and river navigation. SIVAM is the infrastructure for the wider concept of a Brazilian interagency System for the Protection of the Amazon, SIPAM.

41.Katherine Ellison, "Brazil's Nervous Neighbors," Knight Ridder Newspapers in *Kansas City Star*, 24 January 1999. "Brazil had to devalue its currency, despite a \$41.5 billion international loan package, mainly because its legislature has lacked the will to reduce the government's chronic overspending. But it's tough to curb social spending when 43 percent of the people live on less than \$2 a day. And the privileged class—one tenth of the people get half the country's income—is used to its perks, including an out-of-whack social security system that makes it possible for many people in their 30s and 40s to retire at full salary."

42.General de Brigada Sylvio Heitor Ramos, interview.

Photos: US Army and *Exercito Brasileiro*